

comments that all other claim limitations not listed must be shown or the features canceled from the claims.

The basic system is illustrated in Figs. 1, 2 and 14 and includes a CPU 10 together with storage media (20, 30), I/O (70, 80), display (50, 56) voice synthesizer (40, 44) and disk input (60, 100). A keyboard is shown in Fig. 2. Further, the figures include flowcharts (Figs. 3, 9, 11, 13, and 16) and display screen illustrations (Figs. 4, 10, 12 and 17). Other figures illustrate examples of chord progression data tables (Fig. 5), timing data tables (Fig. 6), timing data (Fig. 7) and a basic explanation of the game system of Fig. 14 (Figs. 15 and 16).

Applicants submit that the deficiencies identified by the Examiner do not exist as would be clear from a careful review of the specification. The Examiner's requirement is essentially a demand that Applicant show for each claim limitation as a corresponding structure in the Figure. This is not required by law, rules or regulations and should be traversed as an unreasonable requirement to perform the Examiner's job. For example, the mark-up processing device (Figs 1, 2, 14), displays (Figs. 1, 2, 4, 10, 12, 14 and 17), the duet information (Fig. 17), timing information (Figs. 15 and 17) and the like are all supported by the illustrations in the application. The correspondence of these limitations to the figures is clear.

Thus, Applicants respectfully submit that the system-based diagrams, along with the detailed description of the functions that the components perform (some like a processor, which is illustrated, performing many functions) the analysis is flawed. Moreover, the requirements of 37 C.F.R. § 1.83(a) merely requires the illustration of a generic structure and not every detailed feature, particularly operational feature, of an invention. This policy is reflected in MPEP section 608.02(d) and where the subject matter is understandable by one skilled in the art from the disclosure and figures, minute details need not be provided.

Claim Rejections - 35 U.S.C. § 112

Claims 1-22 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner comments that claims 1, 13, 16, 21 and those dependent therefrom are indefinite because it is not adequately defined to one of ordinary skill in the art "how a player can operate an instrument in accordance with an operation instruction of a displayed image of a performance

operation instrument.” The Examiner further comments that the meaning of “performance operation instrument” is not clear. Similarly, the Examiner comments that one of ordinary skill would not understand how the mark-up processing device could mark-up an improvised musical operation and how the performance can be improvised while performed in accordance with an operation instruction. The Examiner observes that one of ordinary skill would understand an improvised performance to be one created or changed by the musician on the spot. Finally, the Examiner comments that it is not clear what is meant by “performance operation and instruction” as it relates to an improvised performance, again because the Examiner finds that the existence of an instruction contradicts the fact that a performance is improvised. The Examiner also comments that there is no proper definition in the claims for what is meant by the term “marks-up”.

From these comments, Applicants respectfully submit that the rejection is improper and based on a misunderstanding of music. As expressed at page 2, lines 7-15, an **“improvised performance”** is one that is “ad-libbed” and is creative. Further, at lines 19-25, the purpose of the invention is described as providing a game system which enables a player to enjoy improvised performance “for obviating a feeling of wanting more and mark-up (i.e., score) the improvised performance.” As is clear from the description of the invention, the player may improvise a given well known song, e.g., “Jingle Bells,” by adding to it riffs, chord progressions, changes in timing and the like. This is not the creation of an entirely new song from scratch, but the provision of harmonic, compatible adaptations of the basic score in a manner that would be considered artistically acceptable and coherent. The changes in timing, sequences of chords and departures from the underlying musical melody are all elements of improvisation that may be evaluated by a processor.

In the implementation of the invention according to an exemplary embodiment, the **“actual performance operation instrument”** would be a keyboard as illustrated in Fig. 2, where the display of instructions is similarly a keyboard as illustrated in Fig. 4. Similar correspondence between other actual and displayed instruments, such as a guitar, can be imagined.

In a basic mode of operation, as described at page 16 with regard to Figs. 3 and 4, a keyboard 80 is displayed as an image 400 with a reference line 404 and a score display area 402 for displaying a score assigned to a player. A marked display processing (step S300) is performed and provides triangular marks 410 so as to fall in sequence in the direction from top to bottom in the drawing. The player must operate the corresponding key on the keyboard section 82 when the mark arrives at a position on the reference line 404. This operation will result in a score (step S330).

As explained beginning at page 17, according to the disclosed and claimed invention, the game is not completely bound by the marks 410 but an improvised performance mode can provide a player with a certain degree of freedom in accordance with a performance operation instruction, such as a chord display. This results in the improvised performance being “marked-up”.

The first embodiment at page 17 teaches a use of chord progression data (500) and timing data (600) that govern the timings at which a key is to be operated. Guidance information, which is improvised musical performance operation guide information for a player (step 900), is provided by the use of guidance marks 420 that are added to a keyboard display image until the improvised musical performance ends.

Other guidance indications also may be provided. As explained at page 20, data representing musical scale data and data pertained to key operation timings are stored at step S910 and the CPU then “marks up” the improvised performance in step S920. Figure 13 shows the results of a mark-up operation.

As summarized at line 25 on page 20, an improvised performance of a player can be marked up on the basis of a progression a musical performance chords by the mark-up operation of the CPU 10. A second mark-up operation is based upon musical performance timings is explained with regard to Fig. 13b.

Thus, Applicants would respectfully submit that the disclosure of the invention is abundantly clear and provided with examples adequate to instruct one of ordinary skill in the art

how to conduct such improvised musical game operation. On the foregoing basis and a further review the disclosure of the application, this rejection should be overcome.

Claim Rejections - 35 U.S.C. § 103

Claims 1-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller (6,541,692). This rejection is traversed for at least the following reasons.

The Invention

The operation of the present invention has already been described with regard to the rejection under 35 U.S.C. § 112. The claims expressly reflect one or more features of this operation.

Miller

The patent to Miller is based upon a U.S. application filed on **June 28, 2001**. The present application is based upon Japanese Application 2000-207621 filed on **July 10, 2000**, which is the priority date for the present application. In the Summary sheet of the present Office Action, the Examiner has acknowledged Applicants' claim for priority and has acknowledged that all certified copies of the priority documents have been received. Applicants wish to note that they can rely upon this priority date, and can overcome the rejection, as the U.S. filing date of the Miller patent almost one year later and the Applicants' priority date.

Applicants also submit that Miller is not directed to a game involving improvisation of musical pieces for experienced game players. Instead, Miller is directed to a musical learning device that enables a non-musician to produce reasonable music without any prior training. Thus a complete novice can use an extremely input device to play a part that fits in well with a harmonious background music part (col. 2, lines 35-44). The invention includes a display that provides guidance to the player rather than relying on the player's ability to improvise (col. 2, lines 51-53).

With regard to the use by multiple players, the invention allows non-musicians to play together using a public network with high and/or variable latency characteristics (col. 2, lines 59-62).

In short, and by contrast to the present invention, the invention of Miller provides the illusion that the user is playing along with the musical performance but does not involve actual play (col. 3, lines 23-24). According to the invention, when a player plays a note, the computing device uses a sound synthesis unit to generate a musical tone (col. 3, lines 55-56). Thus, the sound produced is for a synthesis of the machine, rather than an actual improvisational performance of the player, where the raw input by the player is recorded without assistance from the game machine.

While the Miller reference does mention the evaluation of a player's performance using a scoring mechanism as well as competition between players (col. 4, lines 4-52) and the game can be played at several levels, the fundamental distinction between Miller and the present invention still remains. Namely, there is no improvisational performance by a experienced player in a game environment that can be evaluated on the basis of improvisational parameters such as timing and chords.

The Examiner has pointed to portions of the Miller disclosure that relate to use of alternative structures and asserts that these result in improvisation. Applicant respectfully submits, however, that the use of alternative structural components and alternative patterns, in order to provide variety within a song such that a user can play a single song a number of times without producing the same musical pattern in the same song each time, is a matter of variation by the machine and not improvisation by the user. As explained at col. 8, line 10, the pattern 45 shown in Fig. 3 has four different rhythmic decomposition or alternative patterns. Each is valid in the context of the music and the user may play along with a song in accordance with any one of the four alternative patterns. Each time the user plays the song, a different alternative pattern can be accessed to provide some variety in the music and prevent the song from being too repetitious. However, this is not improvisation by the user but, again, selection by the machine. Thus, Applicants further assert that the invention is patentable for the reasons given even if Miller is applied against the claims.

This reasoning would apply to any of independent claims 1, 13, 16, and 21.

Amendment under 37 C.F.R. § 1.111
Application No. 09/880,909

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

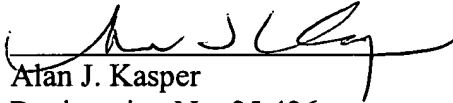
Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER


Alan J. Kasper
Registration No. 25,426

Date: December 24, 2003